

RESEARCH and Innovations

Analysis, Public and Legal Affairs

N°8 • December 2007

COMPARATIVE STUDIES

HIGHLIGHTS

- For CIHR Doctoral Awards programs, the number of applications received for Québec institutions increased by 34% between 2000 and 2006. The figure for Canada as a whole was 77%.
- Québec's relative share of the applications received decreased from 47% to 35% during this period, bringing it more in line with its share of doctoral students in the health field (36%).
- The sharp increase in the number of applications received between 2000 and 2006 triggered a drop from 37% to 16% in Canada's success rates.
- Between 2000 and 2006, CIHR granted 164 awards a year on average, 61 of which to awardees from an institution located in Québec.
- Québec institutions' share of applications received was therefore 37%, making it the front runner, ahead of Ontario (35%), British Columbia (14%) and Alberta (7%).

Trends in the distribution of CIHR Doctoral Award program applications from 2000 to 2006

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Within the Canadian federation, Québec is renowned for the excellence of its research centres, groups and networks and for the competitiveness of their researchers in the health field. Québec researchers and students are usually considered to score excellent results at federal granting agency competitions. This study, which is part of a series of studies on CIHR scholarship and fellowship programs, presents data on the distribution of the number of applications received, applications recommended for award, and awards under Canadian Institutes of Health Research (CIHR) Doctoral Awards programs. It brings together data from the CIHR Doctoral Research Awards (DRA) program and the new Canada Graduate Scholarships (CGD) program introduced in 2003 and managed by CIHR. Based on the applicants' university of affiliation, the study makes it possible to measure the capability of Québec research institutions to attract federal merit scholarship awardees in the health field at the doctoral level and to compare Québec's performance in this respect with that of other Canadian provinces.



MAIN RESULTS (CGD + DRA)

Québec's level of applications received was proportional to its share of students:

- In 2006, applicants who chose an institution located in Québec represented 35% of the applications received. This proportion was similar to Québec's share of doctoral students in the health field in Canada (36%).
- In comparison, Ontario accounted for 39% of the applications received (with 34% of students), British Columbia, 13% (10% of students) and Alberta, 8% (10% of students).
- In 2006, 311 applicants chose an institution located in Québec, which is comparable to the number of applicants for the FRSQ's Doctoral Awards program, which averages approximately 400 per year.

From 2000 to 2006, success rates for CIHR Doctoral Awards programs decreased:

- Between 2000 and 2006, success rates for CIHR Doctoral Awards programs for Canada fell from 37% to 16%.
- Every province saw its success rate dwindle during this period: from 31% to 20% for Québec, from 41% to 11% for Ontario, from 45% to 14% for British Columbia and from 40% to 16% for Alberta.
- This decrease was due mainly to a sharp increase in the applications received (+77% between 2000 and 2006), without an equivalent increase in the number of awards.

Québec's share of awards, similar to its share of students, increased substantially in 2006:

- Between 2000 and 2006, the number of awardees for Canada as a whole was 164 a year on average.
- For the same period, Québec had an average of 61 awards a year, or 37%. By comparison, Ontario had 57 (35%), British Columbia, 22 (13 %), and Alberta, 12 (7%).
- In general, the success rates of applicants with an institution of affiliation located in Québec were below the national average. However, in the three last years of the six-year period in question, their performance improved. In 2006, they represented almost half of awardees (45%).

Distribution of applications received

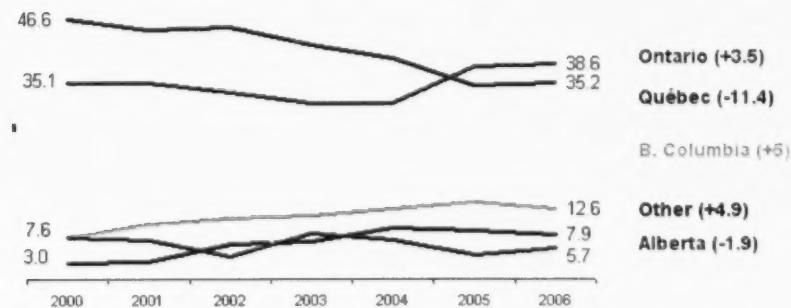
For Canada as a whole, the number of applications received for CIHR Doctoral Awards programs grew by 77% between 2000 and 2006 (from 498 to 883). The number of applications received for applicants with an institution of affiliation located in Québec also increased, but at half the pace reported for Canada as a whole, moving from 232 in 2000 to 311 in 2006, a 34% rise (Table 1).

TABLE 1 – Applications received (CGD + DRA)

	APPLICATIONS RECEIVED													
	2000		2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
British Columbia	38	7.6	47	10.0	61	11.0	91	11.5	110	12.6	126	13.9	111	12.6
Alberta	38	7.6	33	7.0	23	4.1	65	8.2	62	7.1	40	4.4	50	5.7
Ontario	175	35.1	166	35.2	187	33.6	250	31.6	276	31.5	345	38.1	341	38.6
Québec	232	46.6	210	44.6	251	45.1	331	41.9	347	39.7	315	34.8	311	35.2
Other	15	3.0	15	3.2	35	6.3	53	6.7	80	9.1	79	8.7	70	7.9
Total	498	100.0	471	100.0	557	100.0	790	100.0	875	100.0	905	100.0	883	100.0

Consequently, Québec institutions' share of applications received decreased steadily during the period studied. While it was 47% in 2000, by 2006 it was only 35% (Figure 1), the sharpest decrease of all Canadian provinces. However, this share of 35% of applications received was more in line with Québec's share of doctoral students in the health field (36%).

Figure 1 – Distribution of applications received (CGD and DRA)



As for the other provinces, in the last two years of the period concerned, applicants with an institution of affiliation in Ontario posted the most applications received (38%), whereas the number of applications received for institutions in Alberta varied from 4% to 8%. British Columbia enjoyed a substantial increase, with the number of applications received rising from 7.6% in 2000 to 12.6% in 2006, peaking at 13.9% in 2005. Lastly, in 2006, the "Other" category (comprising institutions in provinces for which no specific results are presented, plus institutions abroad) moved up, accounting for 7.9% of applications received (Figure 1). In the last four years of the period covered, institutions abroad represented roughly 3% of applications received, or nearly half of the applications in the "Other" category.

Distribution of applications recommended for award

As is the case with most merit scholarship competitions, recommendation rates in CIHR Doctoral Awards programs are very high. For competitions held between 2000 and 2006, they fluctuated between 95% and 99% (Table 3).

Québec does not particularly stand out from the other provinces in terms of changes in its rates of recommendation. During the period studied, these rates varied by ± 1.9 percentage points in relation to the average rate of recommendation for the whole country (Table 3).

TABLE 2 – Applications recommended for award (CGD + DRA)

	APPLICATIONS RECOMMENDED FOR AWARD													
	2000		2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
British Columbia	36	7.6	46	10.0	58	10.8	91	11.7	108	12.5	122	14.1	99	11.9
Alberta	37	7.8	32	7.0	23	4.3	64	8.2	61	7.1	37	4.3	49	5.9
Ontario	168	35.5	162	35.2	176	32.9	243	31.3	268	31.1	321	37.0	317	38.0
Québec	216	45.7	205	44.6	240	44.9	321	41.3	336	39.0	304	35.1	300	35.9
Other	16	3.4	15	3.3	38	7.1	58	7.5	89	10.3	83	9.6	70	8.4
Total	473	100.0	460	100.0	535	100.0	777	100.0	862	100.0	867	100.0	835	100.0

TABLE 3 – Rates of recommendation (CGD + DRA)

	RATES OF RECOMMENDATION						
	(Applications recommended for award/Applications received)						
	2000	2001	2002	2003	2004	2005	2006
British Columbia	94.7%	97.9	95.1	100.0	98.2	96.8	89.2
Alberta	97.4	97.0	100.0	98.5	98.4	92.5	98.0
Ontario	96.0	97.6	94.1	97.2	97.1	93.0	93.0
Québec	93.1	97.6	95.6	97.0	96.8	96.5	96.5
Other	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Canadian average	95.0	97.7	96.1	98.4	98.5	95.8	94.6

Distribution of awards

During the 2000-2006 period, the total number of awards varied widely. On average, CIHR granted 164 awards a year, including 61 for Québec. Québec institutions' share of awards was therefore 37% on average, ahead of Ontario (35%), British Columbia (14%), Alberta (7%) and Other (7%). In the last four years of the six-year period, institutions located abroad represented on average 3.6% of all awards and accounted for approximately half of applications in the "Other" category.

In 2006, Québec's performance was particularly remarkable, with 62 of 139 awards, or 44.6% thereof. By comparison, Ontario had 39 awards (28.1%), British Columbia, 15 (10.8%), Alberta, 8 (5.8%) and Other, 15 (10.8%) (Table 4 and Figure 2).

Analysis of annual success rates for the entire country shows that they were in free fall from 2000 to 2006, plummeting by more than half (from 36.7% to 15.7% - Table 5). In general, applicants with an institution of affiliation in Alberta and in British Columbia posted success rates above the national average during this period. Even though in the last three years, their success rates rallied somewhat, applicants with an institution of affiliation in Québec systematically obtained success rates below the national average, except for the last year covered (Table 5). Inversely, Ontario's success rates were consistently below the national average during the same period (Figure 3).

TABLE 4 – Awards (CGD + DRA)

	AWARDS													
	2000		2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
British Columbia	17	9.3	19	14.2	15	12.4	30	13.6	26	15.4	35	19.1	15	10.8
Alberta	15	8.2	9	6.7	7	5.8	23	10.5	15	8.9	7	3.8	8	5.8
Ontario	71	38.8	53	39.6	43	35.5	79	35.9	52	30.8	64	35.0	39	28.1
Québec	71	38.8	52	38.8	49	40.5	73	33.2	63	37.3	60	32.8	62	44.6
Other	9	4.9	1	0.7	7	5.8	15	6.8	13	7.7	17	9.3	15	10.8
Total	183	100.0	134	100.0	121	100.0	220	100.0	169	100.0	183	100.0	139	100.0

Figure 2 – Distribution of awards (CGD and DRA)

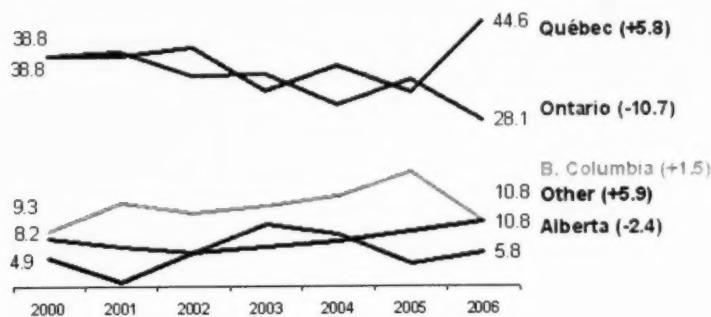
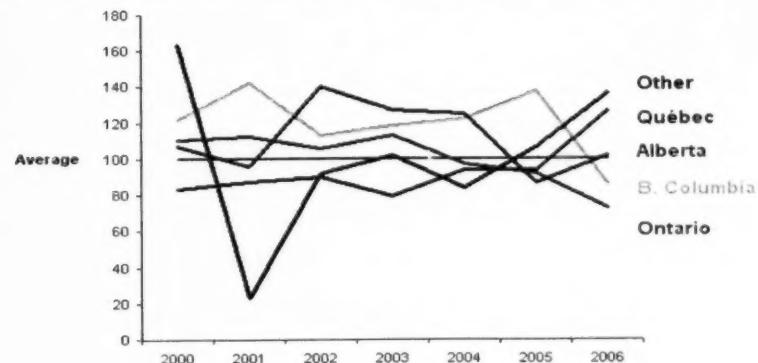


TABLE 5 – Success rates (CGD + DRA)

	SUCCESS RATES						
	(Awards/Applications received)						
	2000	2001	2002	2003	2004	2005	2006
British Columbia	44.7%	40.4	24.6	33.0	23.6	27.8	13.5
Alberta	39.5	27.3	30.4	35.4	24.2	17.5	16.0
Ontario	40.6	31.9	23.0	31.6	18.8	18.6	11.4
Québec	30.6	24.8	19.5	22.1	18.2	19.0	19.9
Other	60.0	6.7	20.0	28.3	16.3	21.5	21.4
Canadian average	36.7	28.5	21.7	27.8	19.3	20.2	15.7

Figure 3 - Success rates - Difference with the national average, base 100 (CGD and DRA)



Methodological notes

Data concerning Doctoral Awards programs were provided by the Canadian Institutes of Health Research (CIHR). They include data on the CIHR Doctoral Research Awards (DRA) program and the new Canada Graduate Scholarships (CGD) program introduced in 2003, and refer to the province in which the institution of affiliation (the institution to which the award amount is issued) is located. The "Other" category contains data for the institutions located in Canadian provinces for which no specific data were presented, and data for institutions located outside of Canada. Given the lack of volume, the data provided by CIHR for this category may sometimes contain numbers for applications recommended for award higher than the number of applications received.

The data on doctoral students in the health field were provided by the Ministère du Développement économique, de l'Innovation et de l'Exportation. They comprise data for 2003-2004 for full-time students in the following university programs: 1) health- and clinical science-related professions; 2) residency programs in medicine, dentistry, and veterinary medicine (even though veterinary medicine cannot be excluded from the category of residency programs, it accounts for a very small proportion thereof); 3) psychology; and 4) biological and biomedical sciences.